EXHIBIT A

"Dr. Coleman's Expert Report"

DAVID N. WOLF (6688)
LANCE SORENSON (10684)
Assistant Utah Attorneys General
OFFICE OF THE UTAH ATTORNEY GENERAL
160 East 300 South, Sixth Floor
P.O. Box 140856
Salt Lake City, Utah 84114-0856
Telephone: (801) 366-0100
Facsimile: (801) 366-0101
E-mail: dnwolf@agutah.gov
E-mail: lancesorenson@agutah.gov
Counsel for State Defendants

IN THE UNITED STATES DISTRICT COURT

IN AND FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

PLANNED PARENTHOOD ASSOCIATION OF UTAH, Plaintiff, v. JOSEPH MINER, in his official capacity as Executive Director of the Utah Department of Health; MARK B. STEINAGEL, in his official capacity as Director of the Utah Division of Occupational and Professional Licensing; SIM GILL, in his official capacity as District Attorney for Salt Lake County; SEAN D. REYES, in his official capacity as Attorney General for the State of Utah; and GARY R. HERBERT, in his official capacity as Governor for the State of Utah, Defendants.	**EXPERT REPORT OF PRISCILLA K. COLEMAN, PH.D.** Case No. 2:19-cv-00238 Judge Clark Waddoups

EXPERT REPORT OF PRISCILLA K. COLEMAN, PH.D.

I, Priscilla K. Coleman, do hereby state under oath that I am of at least 18 years of age and I am competent to testify.

I. Introduction and Professional Background

1. I was retained by the Utah Attorney General's Office to provide expert opinions pertaining to Utah House Bill 136 (hereinafter "HB 136"), prohibiting abortions after 18 weeks post-dating the first day of the last menstrual period, except under certain circumstances. My understanding is HB 136 permits abortion after 18 weeks gestation only to avert a woman's death or prevent serious risk of substantial and irreversible impairment of a major bodily function, in cases wherein the fetus has a lethal defect or a severe brain abnormality, or when the pregnancy was the result of rape or incest.

2. In preparation for this declaration, I reviewed the following case documents:

a. Complaint for Declaratory and Injunctive Relief; filed 4-10-19;
b. State Defendants' Answer to Plaintiff's Complaint, filed 5-02-19;
c. State Defendants' Motion to Allow Limited Proportional Discovery and Memorandum in Support Thereof, filed 5-03-19;
d. Order of Honorable Clark Waddoups; filed 6-24-19; and
e. Stipulated Protective Order, Honorable Clark Waddoups, filed 8-12-19.

3. I am a developmental psychologist and a Professor of Human Development and Family Studies (HDFS) at Bowling Green State University (BGSU) in Ohio. I have been a full-time employee at BGSU for the last 17 years. I received promotion to Associate Professor with tenure in 2005 and promotion to Full Professor in 2010. As a faculty member in HDFS, I am responsible for teaching the following undergraduate courses: Adolescent Development, Child Development, Life-Span Development, Parenting Processes, and Research Methods. I also advise approximately 50-100 students enrolled in the HDFS major each year, and I serve on various committees at the program, school, college, and university levels at BGSU. I have a B.A. in Psychology, an M.A. in General Psychology, and a Ph.D. in Life-Span Developmental Psychology.

4. I have published over 55 peer-reviewed scientific articles, with the majority related to the psychology of abortion (reproductive decision-making, psychological outcomes associated with abortion, and risk factors that increase the probability of women experiencing post-abortion

mental health declines.) Based on my expertise, I often serve as a content expert in state and civil cases involving abortion. I have given presentations in parliament houses in Great Britain, Northern Ireland, New South Wales, and Queensland, and I have testified before state legislative bodies and before a U.S. Congressional committee.

5. Trained as a developmental research psychologist, I have the requisite skills to evaluate the methodological strengths and weaknesses of studies across various disciplines, and it is for this area of expertise, in addition to my extensive content research on the psychology of abortion, that I have served as an expert witness. I have extensive professional experiences relevant to my expertise as a methodologist. Among the most significant are doctoral level methodology training, extensive editorial board experience (currently 5 international psychology and medicine journals), two decades as a reviewer for dozens of journals, reviewer for the American Psychological Association Task Force Report on Abortion and Mental Health, published in 2008, and teaching undergraduate and graduate research methods courses dating back to 1993. A complete listing of my academic and professional background is contained in my Curriculum Vitae (Exhibit A).

6. I hold the opinions expressed in this report to be true to a reasonable degree of scientific and medical certainty. My education, professional experience, research, and extensive and ongoing review of the abortion literature have formed the basis of my opinions. The references to peer-reviewed publications provided in this report have been formative in shaping my opinions on the issues I address, as have other publications too numerous to mention in my ongoing review of the scientific literature.

II. Overview of Opinions

7. Analysis of the strongest scientific studies published worldwide definitively reveals elective abortions are associated with greater psychological health risks to women than pregnancies carried to term. As pregnancy proceeds and the development of the fetus progresses, science indicates abortion-related risks to the psychological well-being of the mother increase substantially. HB 136 will benefit women of Utah, as there will likely be a reduction in mental illness with fewer abortions occurring at later gestational points. Abortion clinic personnel may also experience less pronounced psychological duress once the law goes into effect, based on evidence in the professional literature revealing increased stress and traumatic responses among doctors and other professionals as fetuses develop and their human features become undeniable.

8. In support of my opinions, I provide a review of literature on the increased risk of mental health problems associated with abortion. There are empirical studies and reviews of literature published by professional organizations, suggesting abortion does not increase women's risk for psychological distress. However, as demonstrated below, these studies suffer from significant ideological bias and methodological flaws. I will further explain why abortions occurring at later gestational points are associated with greater risk for mental health problems. Finally, I describe the psychological risks to abortion clinic personnel associated with witnessing and participating in abortions, focusing on terminations at later gestational points in pregnancy.

III. Abortion as a Significant Risk Factor for Post-Abortion Mental Health Declines

9. There is a vast literature describing a robust association between abortion history and detriments to women's psychological well-being and mental health status. In this section of my report, I address evidence from scientific sources indicating abortion increases risk of women suffering psychologically after an abortion. Moreover, the available data has clearly shown that women's risk of adverse psychological consequences is exacerbated as the fetus develops and abortions occur at later gestational points in pregnancy.

10. A Clinician's Guide to Medical and Surgical Abortion is a textbook written by leading abortion providers (Paul, et al., 1999) for training doctors who perform abortions. The chapter on counseling in this text outlines several negative reactions that women may experience after abortion, including depression, severe guilt, shame, and unresolved grief (Baker, 1999). According to the Clinician's Guide, symptoms of depression include the following: crying, suicidal ideation, poor performance in school or work, loss of interest in enjoyable activities, and feelings of worthlessness. Symptoms of severe guilt entail the following: 1) self-punishing behaviors such as substance abuse or indiscriminate sex; 2) nightmares about killing or saving babies; 3) blocking out the experience; 4) avoiding anything that triggers memories of the event; 5) fearing God's punishment; and 6) interpreting misfortune, illness or accident as signs of God's punishment. Symptoms of shame include the following: 1) relentless thoughts of being a bad person; 2) engaging in self-destructive behaviors; 3) fear of anyone finding out about the abortion. Finally, symptoms of unresolved grief, according to the abortion text involve engaging in thoughts and behaviors that perpetuate a strong emotional investment in the pregnancy or that prevent the redirection of emotional energy into moving forward with life.

11. Over the past several decades, the number of peer-reviewed studies identifying adverse mental health outcomes associated with abortion have increased dramatically, as has the scientific rigor of the research on this topic. The literature base comprised of 100s of studies has

revealed that women, who choose abortion compared to those who do not, experience increased risk of mental health problems, including substance abuse, anxiety, depression, suicidal ideation and suicide, among other conditions and symptoms (e.g., Bradshaw & Slade, 2003; Coleman et al., 2002a, 2002b; Coleman, et al., 2005; Coleman, 2006; Cougle et al., 2003; Dingle, 2008; Fergusson et al., 2006, 2008; Gissler et al., 2005; 2015; Mccarthy, 2015; Mota et al., 2010; Pedersen, 2007, 2008; Reardon et al., 2004; Rees & Sabia, 2007; Sullins, 2016).

12. The scientific evidence linking abortion to increased rates of mental health problems is published in leading peer-reviewed journals in psychology and medicine, and there are now dozens of large-scale prospective studies with 1000s of participants incorporating different types of comparison groups and other control techniques, effectively fortifying the level of confidence in the results derived. Potentially confounding variables controlled in the various studies include prior mental health, reproductive history, experience of abuse of various forms, and several demographic variables thereby increasing the reliability and validity of the findings. Exhibit B provides a synopsis of 53 studies published since 1993 indicating abortion increases risk for mental health problems of various forms.

13. In a 2013 narrative review of literature published between 1995 and 2011, incorporating 30 peer-reviewed journal articles by Italian researchers Bellieni and Buonocore, the authors concluded that the studies analyzed demonstrated abortion poses a stronger risk for mental illness than childbirth.

14. In 2011, I published a meta-analysis titled “Abortion and Mental Health: A Quantitative Synthesis and Analysis of Research Published from 1995-2009.” in the British Journal of Psychiatry. A meta-analysis is a specific form of systematic literature review wherein quantitative data from multiple published studies are converted to a common metric and are then combined statistically to derive an overall measure of the effect of an exposure such as abortion. This methodology gives the results more statistical power and much more credibility than the results of any individual empirical study or narrative review. In a meta-analysis, the contribution or weighting of any particular study to the final result is based on objective scientific criteria (sample size and strength of effect), as opposed to an individual’s opinion of what constitutes a strong study.

15. After applying methodologically-based selection criteria and extraction rules to minimize bias, the sample consisted of 22 studies, 36 measures of effect, and 877,297 participants (163,880 of whom experienced an abortion). Results revealed that women who aborted

experienced an 81% increased risk for mental health problems. When compared specifically to unintended pregnancy delivered, women were found to have a 55% increased risk of experiencing mental health problems.

16. Separate effects were calculated based on the type of mental health outcome, with the results revealing the following increased risks: anxiety disorders 34%; depression 37%; alcohol use/abuse 110%; marijuana use/abuse 220%; and suicide behaviors 155%. Calculation of a composite Population Attributable Risk (PAR) statistic revealed that nearly 10% of the incidence of mental health problems was directly attributable to abortion.

17. Very stringent inclusion criteria were used to avoid bias. Every strong study was included, and weaker studies were excluded based on the criteria. Specifically, among the rules for inclusion were sample size of 100 or more participants, use of a comparison group, and employment of controls for potentially confounding variables that may differ between women choosing to abort and continue a pregnancy until birth. Among the control variables across the various studies were demographic characteristics, exposure to violence, and prior history of mental health problems. In 12 out of 22 of the studies incorporated into the meta-analysis, there were controls for prior mental health. Controlling for history of mental health is particularly important when addressing the association between abortion and mental health outcomes, because women seeking an abortion have higher than average rates of preexisting mental illness. For example, Van Ditzhuijzen and colleagues (2013) found that compared to a reference sample, women who had an abortion were three times more likely to report a pre-abortion history of any mental disorder, nearly five times more likely to experience drug dependence, and over four times more likely to report alcohol dependence.

18. The British Journal of Psychiatry is one of the top psychiatry journals in the field with an impact factor for of 6.62 (in 2011, the publication year), a measure that reflects the average number of citations to articles published in a journal. Only 4.6% of journals in science receive an impact factor of 6 or above. This review offers the largest quantitative estimate of mental health risks associated with abortion available in the world. Subsequent to publication of this meta-analysis, Dr. David Fergusson, a highly prolific New Zealand researcher, published a letter in the British Journal of Psychiatry announcing that his own independent meta-analysis was consistent with the results of my study.

19. This meta-analysis demonstrated that abortion increases risk for mental health problems, not that abortion directly causes such problems. There is often confusion between the concepts of

increased risk and causality. In the text that follows, I explain the distinction between these terms. Due to the inherent complexity of human psychological health outcomes, such as depression and suicidal behavior, identification of a single, precise causal agent applicable to all cases is not possible. Every mental health problem is determined by numerous physical and psychological characteristics, background, and current situational factors subject to individual variation. Further, any one cause (e.g. abortion) is likely to have a variety of effects (e.g., anxiety, depression, suicidal behavior) based on the variables involved. A statistically validated risk factor is any variable (e.g. abortion) that is associated with an increased likelihood of an individual experiencing an adverse outcome (e.g., depression or suicide) across numerous investigations.

20. Risk factor data are used in medicine and psychology for the explicit purposes of understanding etiology, warning patients of risks associated with various medical interventions, and development of effective prevention and intervention protocols to maximize health. Assessment of degree of risk is often expressed in terms of absolute risk, which relates to the chance of developing a disease over a time-period (e.g., a 10% lifetime risk of suicide) or in terms of relative risk, which is a comparison of the probability of an adverse outcome in two groups. For example, abortion increases risk for suicide since the relative risk is significantly higher for women who abort compared to women who give birth or never have children.

21. Determination of causality requires an experimental design in which there is random assignment of large groups to expected causal conditions (e.g., abortion, no abortion/delivery, no abortion/no pregnancy). However, as is true with numerous variables of interest in psychology and medicine, it is not ethical or feasible to implement such a study. When scientists are not able to control or manipulate the variable of interest, risk factors for negative outcomes are established through repeated experimentation over time involving the two scientific steps described below.

22. Each individual study published in a peer-reviewed journal is examined to assess the quality of evidence suggestive of a causal link between a variable and negative outcome. The following three criteria are applied when the variable of interest such as abortion cannot be manipulated. First, abortion must be shown to precede the mental health problem (referred to as time precedence). This is typically accomplished with longitudinal or prospective data collection in which testing occurs over an extended period. Second, differences in abortion history (abortion, no abortion) must be systematically associated with differences in mental health status (referred to as covariation). Finally, all plausible alternative explanations for associations

between abortion and mental health must be ruled out using a method of control. Typically, third variables predictive of both the choice to abort and mental health (e.g. income, previous psychological problems, exposure to domestic violence etc.) are statistically removed from the analyses.

23. After evaluating individual studies for causal evidence linking abortion to decrements in mental health, scientists assess the consistency and magnitude of associations between abortion and particular mental health problems across all available studies. This integrative process represents the second step for determining whether or not abortion is a substantial contributing factor for severe depression and other mental health problems.

24. Consistency refers to repeated observation of an association between abortion and mental health across several studies using different people, places, and circumstances tested at distinct points in time. When results become generalized in this manner, the probability that an association would be due to chance is dramatically reduced.

25. Magnitude (or strength of effect) refers to whether the associations between abortion and various mental health problems are slight, moderate, or strong. Strong associations across various studies are more likely causal than slight or modest associations. This point has been illustrated with the high risk ratios for the association between exposure levels of smoking and incidence of lung cancer. As the evidence for a risk factor accrues over time, scientists gain confidence that a particular exposure may cause specified outcomes; however, causal conclusions can never be made from a single non-experimental study.

IV. Bias and Methodological Deficiencies of Studies Indicating Abortion Does Not Increase Risk for Mental Health Problems

26. In this section, I provide an analysis of reviews of literature on the association between abortion and mental health provided by the American Psychological Association (APA) Task Force on Mental Health and Abortion (TFMHA) and the U.K. National Collaborating Center for Mental Health (NCCMH). Both of these organizations obfuscated the serious mental health risks associated with abortion established in large-scale, well-controlled studies published in highly reputable journals, concluding that abortion is not associated with any more risk to women's mental health than carrying an unintended pregnancy to term. I also address the flaws in the "Turn away" study, which has generated many peer-reviewed articles on the same group of

women wherein the researchers concluded abortion, particularly later term abortions, do not increase mental health risks to women compared to carrying pregnancies to term.

A. The American Psychological Association Task Force Report on Abortion and Mental Health (TFMHA).

27. The APA, which published their literature review in 2008, now has a nearly 50-year history of taking a political stance on abortion, advocating it as a civil right since 1969; therefore, basic precautions should have been followed to assure the work of the Task Force was done in an objective, scientifically defensible manner. The Task Force had no call for nominations and the final make-up of the Task Force was comprised of individuals who have been public advocates of the pro-choice view. For example, Nancy Russo and Linda Beckman responded to APA member Robert Gallagher who questioned the appropriateness of the APA taking "a very clearly political stance by explicitly associating itself with the Pro-Choice Forum" by stating: “Gallagher naïvely assumes findings with implications for women's lives can be ‘apolitical.’ Science always reflects the values of scientists--the difference here is that we state our values up front and do not pretend scientific methods make findings value-free… A pro-choice position means that we believe abortion is the woman's choice, that women should be given accurate information and informed consent in making their reproductive choices, and that they be supported in their decisions.” (http://www.apa.org/monitor/apr03/letters.aspx). Researchers whose work has indicated abortion is harmful to women could have easily balanced the team; yet there was no effort to appoint diverse researchers to the panel. Below is list of additional problems with the conduct of the APA review.

28. There was a claim that three literature reviews (Coleman et al., 2005; Coleman, 2006; Thorp, Hartmann & Shadigian, 2003) were incorporated into the APA report; however, the conclusions of these reviews are entirely ignored, and no explanation is provided. For example, Thorp et al. (2003) concluded that induced abortion increased the risk for “mood disorders substantial enough to provoke attempts of self-harm”; this is not alluded to whatsoever in the APA Task Force report.

29. The APA Task Force did not perform a meta-analysis; therefore, the strength of abortion-mental health associations across studies was not quantified in the 2008 report. In the report, the authors noted: "Given the state of the literature, a simple calculation of effect sizes or count of the number of studies that showed an effect in one direction versus another was considered inappropriate." From the authors' perspective, there are too few studies to quantify effects yet a sweeping definitive statement indicating an absence of ill-effects is considered justified.

30. According to the APA report, the Task Force "evaluated all empirical studies published in English in peer-reviewed journals post-1989 that compared the mental health of women who had an induced abortion to the mental health of comparison groups of women (N=50) or that examined factors that predict mental health among women who have had an elective abortion in the United States (N=23)." Note the second type of study is restricted to the U.S., resulting in elimination of at least 40 studies. Introduction of this exception allowed the Task Force to ignore studies, such as a large Swedish study of 854 women one year after an abortion, incorporating a semi-structured interview methodology requiring 45-75 minutes to administer (Soderberg et al., 1998). Rates of negative experiences were considerably higher than in previously published studies relying on superficial assessments. Specifically, 50-60% of the women sampled experienced emotional distress of some form (e.g., mild depression, remorse or guilt feelings, a tendency to cry without cause, discomfort upon meeting children); 16.1% experienced serious emotional distress (needing help from a psychiatrist or psychologist or being unable to work because of depression); and 76.1% said that they would not consider abortion again, suggesting it was not a very positive experience.

31. The APA Task Force did not select studies based on methodological criteria, but instead included all studies with empirical data related to induced abortion and at least one mental health measure published in peer-reviewed journals in English on U.S. and non-U.S. samples. Sample size, characteristics, and representativeness, type of design, and employment of control techniques should have been the minimum foundation for selecting studies to include in the review.

32. In the APA Task Force Report, there are shifting standards of evaluation based on congruence with a pro-choice agenda. There are numerous examples in the APA report of studies with results suggesting no negative association between abortion and mental health being reviewed less extensively and stringently than studies indicating adverse relationships between abortion and mental health. Positive features of the studies suggesting abortion is a benign

experience for most women are highlighted, while the positive features of the studies revealing negative outcomes are downplayed or ignored. All the studies showing adverse outcomes associated with abortion were published in peer-reviewed journals, many in very prestigious journals with low acceptance rates. A few examples of this bias are detailed below.

33. The Medi-Cal studies (Coleman, Reardon, Rue, & Cougle, 2002b; Reardon et al., 2003) are sharply criticized for insufficient controls; however, with the use of a large socio-demographically homogeneous sample many differences are likely distributed across the groups. Moreover, the strengths of the study include use of actual claims data (diagnostic codes assigned by trained professionals), which eliminate the problems of simplistic measurement, concealment, recruitment, and retention, which all are serious shortcomings of many post-abortion studies. The authors of the Medi-Cal studies also removed all cases with previous psychological claims and analyzed data using an extended time frame, with repeated measurements enabling more confidence in the causal question.

34. Fergusson and colleagues' 2006 study had numerous positive methodological features, yet it was denounced by the APA as flawed. Among the positive features of this study are the following:

1)longitudinal design, tracking women over several years;

2) comprehensive mental health assessments employing standardized diagnostic criteria of DSM III-R disorders;

3) considerably lower estimated abortion concealment rates than found in previously published studies;

4) the sample represented between 80% and 83% of the original cohort of 630 females;

5) the study used extensive controls. Very little discussion in the APA report is devoted to the positive features of this study and the limitations, which are few compared to most published studies on the topic, are emphasized.

35. Sample attrition as a methodological weakness is downplayed in the APA report. The studies with the highest attrition rates, conducted by Majors and colleagues provided little evidence of negative effects; these studies are embraced as high-quality investigations despite attrition rates as high as 60%. Common sense suggests that those who are most adversely affected are the least likely to want to think about the experience and respond to a questionnaire. Research indicates that women who decline to participate or neglect to provide follow-up data are more likely to be negatively impacted by an abortion than women who continue participating

(Soderberg, Anderson, Janzon, & Sjoberg, 1998).

36. Cultural stigmatization as a primary variable related to whether or not negative post-abortion emotional outcomes are experienced is a theme that factors heavily into the APA report. However, there are few well-designed studies, that have been conducted to support the claim that any ill effects of abortion are culturally constructed. In fact, many studies have shown that internalized beliefs regarding the humanity of the fetus, moral, religious, and ethical objections to abortion, and feelings of bereavement/loss often distinguish between those who suffer and those who do not (see Coleman et al.,2005 for a review).

37. Perhaps most egregious is the fact that the final conclusion in the APA Task Force report did not follow from the literature reviewed, and it inappropriately rested on one study by Gilchrist et al. (1995) published in the U.K. that has a number of ignored methodological flaws. The authors of the report concluded: “The best scientific evidence published indicates that among adult women who have an unplanned pregnancy the relative risk of mental health problems is no greater if they have a single elective first-trimester abortion than if they deliver that pregnancy.” Reliance on one study to draw a definitive conclusion stands in direct contrast to accepted scientific protocol as described by Wilkinson and the Task Force on Statistical Inference affiliated with the APA Board of Scientific Affairs. Wilkinson and colleagues (1999) specifically stated in the American Psychologist: "Do not interpret a single study's results as having importance independent of the effects reported elsewhere in the relevant literature. The thinking presented in a single study may turn the movement of the literature, but the results in a single study are important primarily as one contribution to a mosaic of study effects" (p. 602). Several flaws of the Gilchrist study were overlooked by the APA Task Force.
These are detailed below:

a. Very few controls for confounding 3rd variables were employed, meaning the comparison groups may very well have differed systematically with regard to income, relationship quality including exposure to domestic violence, social support, and other potentially critical factors.

b. The authors report retaining only 34.4% of the termination group and only 43.4% of the group that did not request a termination at the end of the study. The attrition rate is highly problematic as are the differential rates of attrition across the comparison groups. Logically, those traumatized are less likely to continue in a study.

c. No standardized measures for mental health diagnoses were employed and evaluation of the psychological state of patients was reported by general practitioners, not

psychiatrists. The GPs were volunteers and no attempt was made to control for selection bias.

d. The response rate was not provided, meaning it is impossible to know if the sample was representative of women in the U.K or not.

38. Within weeks of the release of the APA Task Force Report, Dr. David Fergusson, a New Zealand researcher with an extensive publication record (over 500 peer-reviewed articles), and I drafted a petition letter to Dr. Alan Kazdin, President of the APA. The interest in writing a petition letter originated with Dr. Fergusson, who served as an official reviewer for the Task Force Report. I too served as a reviewer of the Task Force report and we were both distressed by how the Task Force ignored ours and the other reviewers' feedback. Together Dr. Fergusson and I drafted the Letter, solicited support from other well-published researchers, and compiled an extensive list of articles authored by the signatories. The letter was submitted to Dr. Kazdin on September 1, 2008, and the key points we raised are summarized below. At the end of our letter, we requested that the APA revisit this issue and seriously consider a retraction or revision; however, no action occurred.

a. Wholesale dismissal of most of the evidence in the field was unacceptable.
b. In no other area of public health research has a highly contested issue been resolved on the basis of a single out-of-date research study in the way that occurred in the APA Task Force report.
c. The APA Task Force report was not an impartial assessment of the mental health risks of abortion and its conclusions were unduly colored by the views of its authors.

B. The National Collaborating Centre for Mental Health (NCCMH) Royal College of Psychiatrists Literature Review on Abortion and Mental Health.

39. The NCCMH, Royal College of Psychiatrists Review incorporated four types of studies:

1) reviews of the literature;
2) empirical studies addressing the prevalence of post-abortion mental health problems;
3) empirical studies identifying risk factors for post-abortion mental health problems; and
4) empirical studies comparing mental health outcomes between women who choose abortion and delivery.

In each category, there were studies that were ignored and large numbers of studies that were entirely dismissed for vague and/or inappropriate reasons. With regard to the first type of study, only 3 reports were considered (APA Task Force Report, 2008; Charles et al., 2008; Coleman, 2011). The authors of the NCCMH report "missed" 19 reviews of the literature (listed below), published between 1990 and 2011. Moreover, no criteria were identified for selection of particular reviews. Narrative reviews not addressed included the following:

1. Adler NE, David HP, Major BN, Roth SH, Russo NF, Wyatt GE. Science 1990 6; 248(4951):41-4. Psychological responses after abortion.
2. Adler NE, David HP, Major BN, Roth SH, Russo NF, Wyatt GE. Psychological factors in abortion. A review. Am Psychol. 1992;47(10):1194-204.
3. Adler NE, Ozer EJ, Tschann J. Abortion among adolescents. Am Psychol. 2003; 58(3):211-7.
4. Allanson S, Astbury JJ. Psychosom Obstet Gynaecol. 1995;16(3):123-36.The abortion decision: reasons and ambivalence.
5. Bhatia MS, Bohra N. The other side of abortion. Nurs J India. 1990; 81(2):66, 70.
6. Cameron S. Induced abortion and psychological sequelae. Best Practice & Research. Clinical Obstetrics & Gynaecology 2010; Vol. 24 (5), pp. 657-65.
7. Coleman PK, Reardon DC, Strahan T, Cougle R. The psychology of abortion: A review and suggestions for future research. Psychology & Health 2005; 20(2), p237-271.
8. Dagg PK. The psychological sequelae of therapeutic abortion--denied and completed. Am J Psychiatry. 1991;148(5):578-85.
9. Harris AA. Supportive counseling before and after elective pregnancy termination. Midwifery Women's Health. 2004; 49(2):105-12.
10. Lie ML, Robson SC, May CR. Experiences of abortion: a narrative review of qualitative studies. BMC Health Serv Res. 2008; 8:150.
11. Lipp A. Termination of pregnancy: a review of psychological effects on women. Nursing Times 2009; 105 (1), pp. 26-9.
12. Major B, Appelbaum M, Beckman L, Dutton MA, Russo NF, West C. Abortion and mental health: Evaluating the evidence. Am Psychol. 2009; 64(9):863-90.
13. Major B, Cozzarelli C. Psychosocial Predictors of Adjustment to Abortion. Journal of Social Issues 1992; 48 (3), p121-142.
14. Robinson GE, Stotland NL, Russo NF, Lang JA, Occhiogrosso M. Is there an "abortion trauma syndrome"? Critiquing the evidence. Harvard Review of Psychiatry 2009; 17 (4), pp. 268-90.
15. Rosenfeld JA. Emotional responses to therapeutic abortion. Am Fam Physician. 1992;

45(1):137-40.

16. Speckland A, Rue V. Complicated Mourning: Dynamics of Impacted Pre and Post-Abortion Grief," Pre and Perinatal Psychology Journal 1993; 8 (1):5-32.
17. Stotland NL.Clin Obstet Gynecol. Psychosocial aspects of induced abortion.1997 Sep;40(3):673-86.
18. Turell SC, Armsworth MW, Gaa JP. Emotional response to abortion: a critical review of the literature. Women Ther. 1990;9(4):49-68.
19. Zolese G, Blacker CV. The psychological complications of therapeutic abortion. Br J Psychiatry. 1992; 160:742-9.

40. In relation to the third type of study (addressing risk factors for post-abortion psychological problems), only 27 studies were included in the NCCMH report. Below are citations to 20 relevant and unmentioned articles published in highly respected peer reviewed journals. They are not listed in Appendix 7 of the NCCMH report, which contains all included and excluded studies.

1. Allanson S. Abortion decision and ambivalence: Insights via an abortion decision balance sheet. Clinical
   Psychologist 2007; 11 (2), p50-60.
2. Brown D, Elkins TE, Larson DB. Prolonged grieving after abortion: a descriptive study. J Clin Ethics 1993; 4(2):118-23.
3. Fielding SL, Schaff EA. Social context and the experience of a sample of U.S. women taking RU-486 (mifepristone) for early abortion. Qualitative Health Research 2004; 14 (5), pp. 612-27.
4. Hill RP, Patterson MJ, Maloy K. Women and abortion: a phenomenological analysis. Adv Consum Res. 1994; 21:13-4.
5. Kero A, Lalos A. Ambivalence--a logical response to legal abortion: a prospective study among women and men. J Psychosom Obstet Gynaecol. 2000; 21(2):81-91.
6. Linares LO, Leadbeater BJ, Jaffe L, Kato PM, Diaz A. Predictors of repeat pregnancy outcome among black and Puerto Rican adolescent mothers. J Dev Behav Pediatr. 1992;13(2):89-94.
7. Mufel N, Speckhard AC, Sivuha S. Predictors of posttraumatic stress disorder following abortion in a former Soviet Union country. Journal of Prenatal & Perinatal Psychology & Health 2002; 17(1), pp. 41-61.
8. Osler M, David HP, Morgall JM. Multiple induced abortions: Danish experience. Patient Educ Couns. 1997; 31(1):83-9.

9. Østbye T, Wenghofer EF, Woodward CA, Gold G, Craighead J. Health services utilization after induced
abortions in Ontario: a comparison between community clinics and hospitals. American Journal of Medical Quality 2001; 16 (3), pp. 99-106.
10. Prommanart N, Phatharayuttawat S, Boriboonhirunsarn D, Sunsaneevithayakul P. J Maternal grief after abortion and related factors. Med Assoc Thai. 2004;87(11):1275-80.
11. Remennick L, Segal R. Socio-cultural context and women's experiences of abortion: Israeli women and Russian immigrants compared. Culture, Health & Sexuality 2001; 3(1), pp. 49-66.
12. Slade P, Heke S, Fletcher J, Stewart P. Termination of pregnancy: patients' perceptions of care. J Fam Plann Reprod Health Care. 2001;27(2):72-7.
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41. The NCCMH authors stated that "Because the review aimed to assess mental health problems and substance use and not transient reactions to a stressful event, negative reactions and assessments of mental state confined to less than 90 days following the abortion were excluded from the review." This is highly problematic for the following reasons:

a) Elimination of studies that only measured women's mental health up to 90 days, does not effectively remove cases of transient reactions. Just because the authors of these dozens of studies did not follow the women long-term, it does not mean that the women were not still suffering quite significantly beyond the early assessment.

b) When investigating the mental health implications of an event, it is logical to measure outcomes soon after the event has occurred as opposed to waiting months or years to gather data. As more time elapses between the stressor and the outcome(s), healing may naturally occur, there may be events that moderate the effects, and more confounding variables may be introduced.

c) Finally, focusing only on mental health events that occur later in time effectively misses the serious and more acute episodes that are effectively treated soon after exposure. Many of the studies removed from the analyses due to the abbreviated length of follow-up, had incorporated controls for prior psychological history and other study strengths. As a result, the samples of studies included in each section of the NCCMH review were not representative of the best available evidence and many of the eliminated effects coincidentally revealed adverse post-abortion consequences. In the category wherein, the authors sought to derive prevalence estimates, only 34 studies were retained, including a majority without controls for previous mental health. In contrast, in my meta-analytic review, 14 out of the 22 included studies had controls for psychological history.

42. The NCCMH review has numerous factual errors. Specifically, in "Section 1.4.4: Summary of Key Findings from the APA, Charles, and Coleman Reviews," the first 6 points are not reflective of the conclusions derived from my meta-analytic review and the 7th and final point in this section wrongly states, with reference to my review that "previous mental health problems were not controlled for within the review." In fact, my review incorporated more studies into the final analyses with controls for prior psychological problems than the NCCMH Review. Moreover, the conclusions derived from my review were based on more studies with controls for prior psychological history than the Charles and the APA reviews.

43. The NCCMH review was pitched as methodologically superior to all previously conducted reviews, largely because of the criteria employed to critique individual studies and to rate the overall quality of evidence. However, the quality scales employed to rate each individual study are not well-validated and require a significant level of subjective interpretation, opening

the results to considerable bias.

44. The main problems with the quality scales employed by the NCCMH to rate the individual studies are as follows: 1) the categories used are missing key methodological features, including initial consent to participate rates and retention of participants across the study period; 2) the relative importance assigned to the included criteria was arbitrary, as opposed to being based on consensus in the scientific community; 3) the specific requirements for assigning a "+" or "-" within the various categories were not provided; 4) the authors fail to explain (as their predecessors, Charles et al. 2008 did) how combinations of pluses and minuses in the distinct categories add up to an overall rating ranging from "Very Poor" to "Very Good." Incredulously, the highly flawed Gilchrist et al. (1995) study (described above) received an overall rating of "Good", with a mark of "+" (thorough) for confounder control, a "+" for representativeness, and a "+" for validated tools.

45. Similarly, when it came to evaluate the quality of evidence associated with specific outcomes, such as anxiety, depression, suicide ideation, drug or alcohol abuse, psychiatric treatment, etc. with regard to the comparative studies, the GRADE (Grading of Recommendations, Assessment, Development, and Evaluation), was inappropriately employed by the NCCMH. The GRADE system was not designed for use with individual studies, but for analysis of systematic reviews (Burford, Rehfuess, & Schünemann, et al., 2012). The anchors on this scale are vague and oftentimes only one reason is identified by the NCCMH as the basis for a "Very Low" rating. For example, in the category of "Any Psychiatric Treatment," which actually only included the Munk-Olsen et al. study, the basis for the "Very Low" (very uncertain about the estimate) rating was for not having controlled for pregnancy intention. When the study was again evaluated later in the report, it was rated as "Good" in the comparison category. There are loose, poorly conceived rationales with inconsistencies like this throughout the report.

C. University of California-San Francisco's Turnaway Study

46. According to Martin (2016), Warren Buffett donated at least $88 million from 2001 to 2014 to the University of California-San Francisco (UCSF), a medical research institution with a strong reproductive health infrastructure. Martin (2016) interviewed Tracy Weitz, former director of UCSF's Advancing New Standards in Reproductive Health project (ANSIRH), who commented: "there's been recognition in the philanthropic community that in order to make progress, either culturally or politically or in the service-delivery arena, there are research questions that we need to answer." Martin notes: "The

ANSIRH Program was established in 2002 as part of UCSF's Bixby Center for Global Reproductive Health and lists more than two dozen separate abortion-related initiatives on its website on everything from mandatory ultrasound-viewing laws to abortion in movies and TV to reproductive health access for women in the military. The funder and recipient have been closely intertwined…" Martin further commented that for several years now, foundation-backed researchers have churned out studies aimed at debunking common justifications for abortion restrictions including ".. that the psychological damage caused by grief and regret after abortions often persists for years and ruins women's lives. In line with this agenda, researchers at UCSF have published numerous studies using the same data set, known collectively as the "Turnaway Study" The flawed methodology of this study is described below.

47. The Turnaway Study results suggested adverse consequences to denial of a wanted late-term abortion (based on requests beyond the state's limit) relative to women's psychological health and wellbeing (Biggs, 2016). Serious design flaws render data derived from the Turnaway Study unreliable. First, only 37.5% of women invited to take part in the study actually participated, and across the study period, 42% dropped out, rendering the final sample consisting of a mere 22% of those eligible for inclusion (Biggs, et al., 2016). The women whose voices are not included were likely those who had the most negative post-abortion psychological complications, because they are less likely to want to discuss a difficult experience and revisit the trauma (Söderberg, et al., 1998).

48. Second, the authors failed to reveal the specific consent-to-participate rates for each group (1st trimester abortion, 2nd trimester near limit abortion, and denied abortion due to being past the gestational limit). Second trimester abortions have been established as potentially more traumatizing than first trimester procedures (Brewer, 1978; Coleman, Coyle, & Rue, 2010; Soderberg, et al., 1998); therefore, it is likely that a significantly higher percentage of women in the first-trimester group, compared to those in the second-trimester group, consented to participate. When the initial consent-to-participate rate is low, there may very well be differences between those who are willing to be in the study and those who are not, resulting in samples that do not adequately mirror the populations from which they were drawn. If the rates were comparable, they should have been provided details, as failure to report critical information increases suspicion that the second trimester "near limit' group had much lower consent-to-participate rates and was in no way representative of the broader population of women seeking later abortions.

49. Third, the group of women who secured abortions near gestational limits included

women for whom the legal cut off ranged from 10 to 27 weeks, ignoring the fact that women's reasons for choosing abortion and their emotional responses to the procedure differ greatly at varying points of pregnancy. Women aborting at such widely disparate gestational ages should, therefore, not be combined, particularly when the data would have permitted useful segregation by gestational ages.

50. Fourth, the Turnaway Study authors did not provide sampling information. Specifically, they do not explain how the sites located in various cities were selected, nor do they explain the overall type of sampling plan, necessary to enable generalizing to other women.

51. Fifth, in the Turnaway study, all primary outcome measures are simplistic, with two variables (anxiety and depression) containing only six items and two additional variables assessed with only a single item (self-esteem and life satisfaction). This is inexcusable given the many psychometrically sound multiple-item surveys available in the professional literature.Complex human emotions should not be measured in such a superficial manner, and crediblescientists do not extrapolate from minimalistic assessments to women's emotional reactions to one of life's most challenging decisions.

52. Finally, despite wide-spread professional agreement to the contrary, the authors of the Turnaway suggest that later abortions are healthier for women than childbirth, obscuring the well-documented risks of late abortions to women's physical well-being in addition to the elevated psychological risks. For example, using national data, Bartlett and colleagues reported in 2004 that the relative risk of abortion-related mortality per 100,000 was 14.7 at 13 to 15 weeks of gestation, 29.5 at 16 to 20 weeks, and 76.6 at or after 21 weeks. This compares to a 12.1 rate for childbirth. Bartlett reported that the causes of death during the second trimester included hemorrhage, infection, embolism, anesthesia complications, and cardiac and cerebrovascular events.

V. Increased Risk for Mental Health Problems with Advanced Gestational Age Abortions

53. Women who abort later in pregnancy are at an increased risk for experiencing mental health problems. Abortions delayed to the second trimester are more likely to lead to psychological distress, compared to earlier abortions for various reasons. Specifically, women have more time to bond with the fetus, the fetus has developed more fully prior to the termination, women are more aware of the presence of the fetus based on size and movement, and women may have more desire to maintain the pregnancy (Steinberg, 2011). Söderberg et al.

(1998) reported that 37.5% of women who underwent second trimester abortions experienced extreme post-abortion emotional problems. Recently Kelly and colleagues (2019) reported that women who underwent a late-abortion were more likely to suffer from psychological distress, compared to women undergoing earlier procedures.

54. My colleagues and I (2010) analyzed online surveys completed by 374 women who experienced either a first trimester abortion or a second or third trimester abortion. Alarmingly, 52% of the early abortion group and 67% of the late-term abortion group met DSM-IV criteria for Post-Traumatic Stress Disorder symptoms (PTSD). Later abortions were associated with higher intrusion scores, characterized by persistent and unwanted re-experiencing of the traumatic event in the form of recurrent and distressing memories, flashbacks, and hyper-reactivity to any stimuli associated with the trauma. A later abortion was also associated with a greater likelihood of reporting disturbing dreams, feeling emotionally numb, and trouble falling or staying asleep. Social reasons for the abortion were linked with significantly higher PTSD total and subscale scores for the full sample.

55. A risk factor in the abortion context is any physical, psychological, relational, demographic, or situational variable for which there is a statistical association with one or more psychological complications post-dating the procedure. Robust risk factors related to second trimester abortions include potential for bonding/attachment to the fetus, ambivalence/decisional distress, pressure or coercion by others, and younger maternal age. Each of these risk factors is described more fully below.

56. Attachment to the Fetus: Maternal-fetal attachment (MFA) has been studied for over 30 years and was originally defined by Cranley (1981) as “The extent to which women engage in behaviors that represent affiliation and interaction with the unborn child.” Condon (1986; 1987) described MFA with reference to closeness, tenderness, pleasure in interaction, distress at fantasized loss, conceptualization of the fetus as a little person, and the intensity of preoccupation (time spent thinking about, talking to, dreaming about, or palpating the fetus). Condon defined prenatal attachment as “the emotional tie or bond that normally develops between the pregnant parent and her unborn child.” (Condon & Corkindale, 1997, p. 359).

57. Research indicates that only 8% of women experience minimal attachment to the fetus during pregnancy or actually feel a range of hostile or aggressive emotions directed at her unborn child (Condon, 1986; Condon, 1987). Among the vast majority of women who experience positive attachment to the fetus during pregnancy, many women report an attachment bond very

early in pregnancy (Leifer, 1977; Peppers & Knapp, 1980). Moreover, there is evidence that even a meaningful proportion of women who plan to abort, experience attachment to the fetus (Allanson & Astbury, 1996; Patterson et al., 1995). In an Australian study, a significant segment of the sample of women attending an abortion clinic had fantasies about the unborn child and engaged in attachment-related emotions and behaviors, including daydreaming about what type of mother they would be (50%), talking to their fetus (40%), rubbing their stomachs affectionately (30%), and feeling protective of the pregnancy (15%) (Allanson & Astbury, 1996).

58. Research has demonstrated a biological basis for maternal physiological and psychological attachment to the fetus. Specifically, oxytocin, a nanopeptide hormone, plays a vital role in the emergence of maternal attachment behavior across pregnancy and into the postpartum period (Levine, Zagoory-Sharon, Feldman, Weller, 2007). Oxytocin fosters maternal bonding via stress reduction and by integration of psychological and physiological states that promote contact (Uvnäs-Moberg, 1998). As noted by Galbally, Lewis, van IJzendoorn, and Permezel (2011) when a woman becomes pregnant, the Oxytocin produced by both the mother and her fetus across pregnancy is likely to be a factor influencing the motivational and affective processes known as bonding.

59. Ambivalence/ Decisional Distress: Several studies have demonstrated an association between ambivalence and distress surrounding an abortion decision as a predictor of post-abortion mental health problems. Abortion-related ambivalence and decisional distress are very commonly reported experiences of women presenting for abortion. Husfeldt and colleagues (1995) found that 44% of women surveyed had doubts about their decision to abort upon confirmation of pregnancy, with 30% continuing to express doubts when the abortion date arrived. According to Kero, Hogberg, and Lalos (2004), 20.6% of those sampled said the decision to abort was difficult and entailed much conflict. In a study of 500 women, Ralph and colleagues (2017) reported that 80% of women who subsequently underwent abortion disagreed with the statement that the decision was easy. Rocca and colleagues (2015) reported that 53% of women seeking abortions described the decision as difficult or very difficult. Finally, Kjelsvik and Gjengedal (2011) reported that studies show 25–30% of women experience abortion ambivalence and find the decision difficult to make.

60. Allanson and Astbury (1996) reported some startling statistics conveying women's ambivalence prior to undergoing an abortion. Below are percentages of women who endorsed statements conveying ambivalence with responses of "quite" or "very" like me.

"I've thought or daydreamed about (if I were to continue the pregnancy) whether

"I'd have a boy or girl" (50%)
"I've talked to the pregnancy in my mind or out loud" (40%)
"I've patted my tummy affectionately" (30%)
"I've imagined coming into some money so that I can continue the pregnancy" (30%)
"I've made plans in my head to continue the pregnancy" (25%)

61. Tornbom, Ingelhammar, Svanberg and Moller (1999) captured a key component of abortion decision ambivalence wherein many women intellectually divorce themselves from the powerful experience of their bodies transforming. Participants specifically described mixed feelings upon confirmation of pregnancy, feeling happy about being pregnant in conjunction with despair, worry and anger at themselves. All the women in the study engaged in healthy behaviors of some kind, including taking vitamins and/or avoiding or reducing the use of alcohol, cigarettes and painkillers. Some women remarked about being surprised by the desire they felt to protect the fetus while simultaneously contemplating abortion.

62. Timing of Abortion during Adolescence: Adolescent women, when compared to older women, are particularly vulnerable to experiencing post-abortion emotional difficulties (Broen, et al., 2005; Campbell, et al., 1988; Cougle. et al., 2005; Gissler, et al., 2005; Niinimäki, et al., 2011; Pedersen, 2008; Quinton et al., 2001; Rue, et al., 2004; Zakus & Wilday (1987). Ely. Flaherty, and Cuddleback (2010) reported that approximately 40% of adolescent pregnancy termination patients experienced elevated levels of depression, noting this rate is well above the 8% reported for the general adolescent population. Adolescent pregnancy termination patients, who reported elevated depression scores also experienced significantly higher levels of stress, guilt, low self-esteem and confused thinking. Finally, depressed adolescent patients reported problems with fathers, family, and friends.

63. Increased psychological vulnerability observed in adolescent abortion patients is likely due to various factors. Adolescents are more inclined than adults to delay decision-making, based on their relative inability to recognize pregnancy, admit being pregnant, and afford the cost of care (Bracken, & Swigar, 1972; Turell, Armsworth, Gaa, 1990). Further, adolescents are typically much less prepared to assume the responsibilities of parenthood, and they are often pressured to abort, resulting in greater risk for psychological injury. Subsequent to an abortion procedure, adolescents are more likely to have suicidal ideation compared to adult women. For example, Campbell and colleagues (1988) reported 29% of adolescents who aborted made suicidal gestures. In another study, if an adolescent woman had undergone an abortion within the last 6 months she was 10 times more likely to have attempted suicide than if she had not had

an abortion in that period (Garfinkel, et al. (1986). Finally, the risk of suicide for adolescents can increase during the "anniversary period" of the abortion, around the date when the pregnancy would have been full-term (Tischler, 1981).

64. Pressure or Coercion to Abort: Numerous peer-reviewed studies indicate that pressure and coercion to abort are frequently experienced phenomena. For example, Harvey-Knowles (2012) reported that 31% of women made their pregnancy-option decision based on persuasive messages from others. In a study published by van Ditzhuijzen and colleagues (2015), the data revealed that 17.6% of women experienced pressure to abort. Ralph, Gould, Baker, Foster (2014) analyzed data from 476 minors seeking abortion in San Francisco in 2008. They reported that 10% of the women sought an abortion because someone wanted them to, with the largest percentage reporting pressure from their mothers (57%) followed by partners (32%), "everybody" (7%), and another family member (6%). Among the minors sampled, 31% reported thinking abortion was akin to killing a baby that is already born; 49% had spiritual concerns; and 24% voiced concern regarding God's forgiveness.

65. In a Florida study by Brown and colleagues (1993), the most frequently reported long-term sequela of abortion, particularly among those who had been coerced to abort, was a prolonged feeling of guilt. Fantasies involving the aborted fetus were the second most frequently mentioned long-term experience. Half of the participants referred to their abortions as "murder" and 44% voiced regret about their decision to abort. Other long-term effects included depression (44%), feelings of loss (31%), shame (27%), and phobic responses to infants (13%). For 42% of these women, the adverse psychological effects of abortion endured over 10 years.

66. When women are pressured or coerced by others to abort, and undergo an abortion they did not personally desire, they are at a significantly increased risk for post-abortion mental health problems (Broen et al., 2005; Brown et al., 1993; Campbell et al., 1988; Franco et al., 1989; Kero et al.,2004; Kimport et al., 2011; Pope et al., 2001; Rue et al., 2004; Williams, 2001).

VI. Psychological Distress Experienced by Abortion Clinic Personnel

67. There is a considerable amount of documentation originating both in the professional medicine and psychology literatures and in books and articles written by nurses and doctors attesting to the widespread psychological harm potentially resulting from clinic exposure to abortions and involvement in the act of performing abortions. This evidence supports the State's interest in preserving the integrity of the medical profession. As described in very unsettling

detail below, involvement in later gestational age procedures is the most destructive to abortion clinic personnel, because the humanity of the fetus becomes undeniable and the methods are unmistakably violent in nature.

68. In American Medical News, a magazine published by the American Medical Association, Gianelli (1993) reported that the discussions at a workshop of the National Abortion Federation "illuminate a rarely heard side of the abortion debate: the conflicting feelings that plague many providers. . . . The notion that the nurses, doctors, counselors and others who work in the abortion field have qualms about the work they do is a well-kept secret." One story was of a nurse who had worked in an abortion clinic for less than a year, who remarked that her most troubling moments were not in the procedure room but afterwards. Many times, she said, women who had just had abortions would lie in the recovery room and cry, "I've just killed my baby. I've just killed my baby." "I don't know what to say to these women," the nurse told the group. "Part of me thinks, Maybe they're right." A doctor in New Mexico acknowledged he was surprised by the anger a late-term abortion aroused in him. The physician identified anger toward the woman and then he noted paradoxically having "angry feelings at myself for feeling good about grasping the calvaria [the top of the baby's head], for feeling good about doing a technically good procedure which destroys a fetus, kills a baby."

69. Forty-five years ago, soon after abortion was legalized in the U.S., in a study by Such-Baer (1974), the author reported that: "almost all professionals involved in abortion work reacted with more or less negative feelings." Those who had contact with the fetal remains had more negative feelings than those who did not according to the author. She noted that their responses varied little: "All emotional reactions were unanimously extremely negative."

70. In a study published in 1989 by Roe involving sampling abortion practitioners (physicians, nurses and counselors), the results revealed ambivalent periods characterized by withdrawal from colleagues, resistance to going to work, lack of energy, impatience with clients, and an overall sense of uneasiness. Nightmares, images that could not be shaken, and preoccupation were also commonly reported. This study was based on interviews with 130 abortion workers in San Francisco between January 1984 and March 1985. Discomfort with abortion clients and/or procedures was not anticipated by the researcher to be evidenced among practitioners who strongly supported abortion rights and expressed high levels of commitment to their work. The author commented: "This preliminary finding suggested that even those who support a woman's right to terminate a pregnancy may be struggling with an important tension between their formal beliefs and the situated experience of their abortion work." The researcher subsequently shifted to interviewing only practitioners who identified themselves as pro-choice

and were committed to continuing their abortion work for at least six months, believing these people would be the most: "free of pre-existing anti-choice sentiments and most resistant to their potential influence, would provide rich insight into the current dilemmas and dynamics of legal abortion work." This lowered the sample to 105 workers and 75% brought up the theme of abortion as a destructive act, as destroying a living thing. As for the concept of murder: "This theme was unexpected among pro-choice practitioners, yet 18 percent of the respondents talked about involvement with abortion in this way at some point in the interview. This theme tended to emerge slowly in the interviews and was always presented with obvious discomfort."

71. Sally Tisdale, a nurse in an abortion clinic who was committed to providing abortions admitted significant ambiguity. In Harper's in 1987, she described abortion as, "the narrowest edge between kindness and cruelty. Done as well as it can be, it is still violence—merciful violence, like putting a suffering animal to death. . . .It is a sweet brutality we practice here, a stark and loving dispassion." She further commented, "I have fetus dreams, we all do here: dreams of abortions one after the other; of buckets of blood splashed on the walls; trees full of crawling fetuses,"

72. There is evidence that the psychological distress experienced by abortion providers increases as the fetus develops. Dr. Sloan, an abortion provider wrote "As the pregnancy advances, the idea of abortion becomes more and more repugnant to a lot of people, medical personnel included" in a book defending his perception of the need for legal abortion. His answer was for clinicians to try to emotionally divorce themselves from the method, a serious challenge indeed as evidenced below.

73. Hern and Corrigan (1980) surveyed abortion clinic staff reactions to the D&E procedures and presented their findings at a meeting of the Association of Planned Parenthood Physicians. Hern and Corrigan reported staff consensus that D&E is a qualitatively distinct procedure, medically and emotionally, from early abortion. Many of the respondents reported serious emotional reactions with physiological symptoms, sleep disturbances, effects on interpersonal relationships, and moral anguish. Reported reactions to the fetus ranged from purposely averting their eyes to shock, dismay, amazement, disgust, fear, and sadness. Attitudes toward the physician included sympathy, wonder at how they could perform the procedure to a desire to protect the physicians from trauma. Kaltreider and colleagues (1979) found that some doctors who provided D&E abortion had ''disquieting'' dreams and strong emotional reactions.

74. Hern and Corrigan (1980) frankly conclude their article by stating: "Some part of our cultural and perhaps even biological heritage recoils at a destructive operation on a form that is

similar to our own, even though we know that the act has a positive effect for a living person....We have reached a point in this particular technology where there is no possibility of denying an act of destruction. It is before one's eyes. The sensations of dismemberment flow through the forceps like an electric current."

75. Dr. Lisa Harris, Associate Professor of Obstetrics and Gynecology at the University of Michigan, Harvard trained, and longtime provider of D&E abortions published an article in a peer-reviewed international journal titled "Second trimester abortion provision: Breaking the silence and changing the discourse" in 2008. She described the purpose of her opinion piece as to "make the case for pro-choice discourse that is honest about the nature of abortion procedures and uses this honesty to strengthen abortion care, including second trimester abortion." (p. 74). Dr. Harris explains the undeniably violent nature of the procedure and the dissonance she experienced performing an abortion and a delivery of the same age fetus on the very same day.

> There is violence in abortion, especially in second trimester procedures. Certain moments make this particularly apparent…The last patient I saw one day was 23 weeks pregnant. I performed an uncomplicated D&E procedure. Dutifully, I went through the task of reassembling the fetal parts in the metal tray. It is an odd ritual that abortion providers perform – required as a clinical safety measure to ensure that nothing is left behind in the uterus to cause a complication – but it also permits us in an odd way to pay respect to the fetus (feelings of awe are not uncommon when looking at miniature fingers and fingernails, heart, intestines, kidneys, adrenal glands), even as we simultaneously have complete disregard for it. Then I rushed upstairs to take overnight call on labor and delivery. The first patient that came in was prematurely delivering at 23–24 weeks. As her exact gestational age was in question, the neonatal intensive care unit (NICU) team resuscitated the premature newborn and brought it to the NICU. Later, along with the distraught parents, I watched the neonate on the ventilator. I thought to myself how bizarre it was that I could have legally dismembered this fetus-now-newborn if it were inside its mother's uterus – but that the same kind of violence against it now would be illegal, and unspeakable. Yes, I understand that the vital difference between the fetus I aborted that day in clinic, and the one in the NICU was, crucially, its location inside or outside of the woman's body, and most importantly, her hopes and wishes for that fetus/baby. But this knowledge does not change the reality that there is always violence involved in a second trimester abortion, which becomes acutely apparent at certain moments, like this one. (p.77).

76. In her article, Harris provides another description of a D&E procedure she performed at 18 weeks gestation while pregnant, she stated:

> With my first pass of the forceps, I grasped an extremity and began to pull it down. I could see a small foot hanging from the teeth of my forceps. With a quick tug, I separated the leg. Precisely at that moment, I felt a kick – a fluttery ''thump, thump'' in my own uterus…There was a leg and foot in my forceps, and a ''thump, thump'' in my abdomen. Instantly, tears were streaming from my eyes – without me – meaning my conscious brain

> - even being aware of what was going on. I felt as if my response had come entirely from my body, bypassing my usual cognitive processing completely. (p.76).

After her child was born, D&E procedures did not become any easier for her and she described increased sadness performing them. She concludes her description of this experience by noting: "The point is that, visually and viscerally, doing an 18-week abortion is different from doing an eight-week abortion. Removing a microscopic fetus and gestational sac is visually and viscerally different from removing what looks like a fully formed but small baby." (p. 76)

VII. CONCLUSION

77. There is a strong foundation of empirical evidence supporting the requirements of HB 136. Once this law goes into effect, women of Utah will be less likely to suffer from post-abortion mental health problems. This is true because procedures occurring later in pregnancy will no longer be permitted in the State except under rare circumstances. There have been efforts by professional organizations to suppress data revealing abortion increases risk for mental health problems by producing biased reviews of the literature. However, scores of empirically sound studies from across the world have definitively shown that abortion is a significant risk factor for post abortion mental health problems and as gestational age advances, the level of risk increases. HB 136 will further reduce the number of abortion clinic personnel inclined to suffer psychologically from witnessing the violent deaths of well-developed fetuses.

VIII. EXPERT TESTIMONY FEES

78. Fees for expert services are as follows: $250 per hour for all in-office work, including record review, attorney consultation, client interviews, scientific literature searches, report-writing, affidavit construction, and testimony preparation; $2500 per day for depositions and courtroom testimony; and $500 per day for travel time.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 9, 2019.

Priscilla K. Coleman

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